

CLAIMS

What is claimed is:

- 1 1. A wireless network adapter, comprising:
- 2 wireless communication circuitry encased in a shell;
- 3 wherein the shell is a detachable molding element of an electronic device.
- 1 2. The wireless network adapter of claim 1 wherein the wireless communication circuitry
- 2 comprises:
- 3 a modulator configured to produce a transmit signal suitable for conveying data on a
- 4 wireless link; and
- 5 a demodulator configured to produce a baseband signal that conveys information received
- 6 via a wireless link.
- 1 3. The wireless network adapter of claim 1 further comprising:
- 2 a bus connector adapted to couple the wireless communication circuitry to an expansion
- 3 bus when the shell is attached to an outer surface of an electronic device having said expansion bus
- 1 4. The wireless network adapter of claim 3 further comprising:
- 2 an RF antenna for communication with a wireless network; and
- 3 a radio modem comprising a bus interface, a baseband controller, and a radio transceiver
- 4 that combine to modulate data onto a radio frequency carrier signal.
- 1 5. The wireless network adapter of claim 4 wherein:

2 the RF antenna is a dedicated unit housed within the shell of the wireless network adapter.

1 6. The wireless network adapter of claim 4 wherein:

2 the RF antenna forms a part of the shell of the wireless network adapter.

1 7. The wireless network adapter of claim 4 wherein:

3 the RF antenna forms a part of a company logo or identifying mark located on the shell of the wireless network adapter.

1 8. The wireless network adapter of claim 4 wherein:

2 the RF antenna is a multi-mode antenna configured to transmit and receive signals
3 conforming to multiple RF standards.

1 The wireless network adapter of claim 4 wherein:

2 the RF antenna incorporates diversity antenna technology.

1 10. A computer system, comprising:

2 a system microprocessor;

3 an expansion bus coupled to the microprocessor and configured to transport data to and
4 from at least one input/output device;

5 an input/output device operatively coupled to said microprocessor; and

6 an expansion port connected to the expansion bus, wherein the port is configured to accept
7 a detachable molding element.

1 11. The computer system of claim 10 wherein:
2 the detachable molding element houses a wireless network adapter comprising:
3 wireless communication circuitry;
4 a bus connector adapted to couple the wireless communication circuitry to the expansion
5 bus when the molding element is attached to the expansion port of the computer system;
6 an RF antenna for communication with a wireless network; and
7 a radio modem comprising a circuitry for conversion between digital and modulated analog
8 signals.

1 12. The computer system of claim 10 wherein:
2 the expansion port comprises a recess configured to accept a circuit card assembly
3 comprising:
4 wireless communication circuitry;
5 a bus connector adapted to couple the wireless communication circuitry to the expansion
6 bus when the circuit card assembly is attached to the expansion port of the computer system;
7 an RF antenna for communication with a wireless network;
8 a radio modem comprising a circuitry for conversion between digital and modulated analog
9 signals; and
10 wherein when the detachable molding element is installed, the molding element encases the
11 circuit card assembly and covers the recess in the computer system.

1 13. The computer system of claim 10 wherein:

2 ~~the detachable molding element houses an expansion device.~~

1 14. The computer system of claim 13, wherein the expansion device is a camera.

1 15. The computer system of claim 13, wherein the expansion device is a biometric security
2 device.

1 16. The computer system of claim 11 wherein:

2 ~~the RF antenna of the wireless network adapter forms a part of a company logo located on~~
3 ~~the shell of the molding element.~~

1 17. The computer system of claim 11 wherein:

2 the exterior case of the computer system functions as the RF antenna of the wireless
3 network adapter.

1 18. A computer system, comprising:

2 a system microprocessor;

3 an expansion bus coupled to the microprocessor;

4 an input/output device operatively coupled to said microprocessor; and

5 an expansion port connected to the expansion bus configured to accept a wireless network
6 adapter;

7 wherein the expansion port is attached to the exterior case of the computer system.

1 19. The computer system of claim 18 wherein:
2 the wireless network adapter comprises:
3 wireless communication circuitry;
4 a bus connector adapted to couple the wireless communication circuitry to the expansion
5 bus when the molding element is attached to the expansion port of the computer system;
6 an RF antenna for communication with a wireless network; and
7 a radio modem comprising a circuitry for conversion between digital and modulated analog
8 signals.

1 20. The computer system of claim 19 wherein:
2 the RF antenna of the wireless network adapter forms a part of a company logo located on
3 the exterior surface of the wireless network adapter.

1 21. The computer system of claim 19 wherein:
2 the RF antenna of the wireless network adapter forms a part of a company logo located on
3 the expansion port of the computer system.

1 22. The computer system of claim 19 wherein:
2 the exterior case of the computer system functions as the RF antenna of the wireless
3 network adapter.

1 23. A laptop computer which comprises:

2 a clamshell case having a shroud and a lid, wherein the shroud has a keyboard which is
3 protected by the lid when the lid is in a closed position, wherein the lid has a
4 display which is protected by the lid when the lid is in the closed position; and
5 an expansion port, wherein the expansion port is located proximate to an upper edge of the
6 lid when the lid is in the open position.

1 24. The computer of claim 23, further comprising:
2 a multifunctional module coupled to the expansion port, wherein one of the functions of the
3 multifunctional module is as a wireless link adapter.

1 25. The computer of claim 24, wherein a second of the functions of the multifunctional module
is decorative embellishment of the lid.

1 26. The computer of claim 24, wherein a second of the functions of the multifunctional module
2 is as a latch release for the lid.

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